push, and turn clockwise. For fluorescent lamp pull out of socket and remove to install push new lamp into socket.

- c. Avoid touching the glass surface of the bulb with bare hand. Any oil brought onto the bulb by the bare hand will negatively affect the heat dissipation and shorten the life of the bulb. Clean the bulb surface if the user has touched the bulb surface accidentally.
- e. Replacement bulbs may be purchased on Ken-A-Vision web site under accessories at www.ken-a-vision.com

#### CARE AND MAINTENANCE

Your microscope is a fine precision instrument and should be treated with care. When not in use it should be protected from dust by the plastic cover provided. Lenses and eyepieces should be cleaned periodically with optical lens tissue which is soft and lint free. Painted surfaces can be cleaned with a moistened cloth.

When using the optional 100xR objective oil emersion lens, be sure not to leave any oil on the lens after use. Dip a cotton swab or lens paper with a small amount of denatured alcohol, and clean the lens surface carefully. Do not use aggressive solvents to clean lens.

Ken-A-Vision has quality technicians on staff to repair or service your microscopes. Ken-A-Vision recommends preventative maintence for optimal life of the product. Contact us at 1.816.353.4787 for more details.

WARRANTY: TEN YEAR LIMITED WARRANTY AGAINST DEFECTIVE PARTS AND WORKMANSHIP.





# **Comparison Scope**

Instruction Manual



#### MICROSCOPE PREPARATION AND SET-UP

#### Step 1

Unpack the two microscopes, the bridge assembly and the binocular head. Remove all the plastic covers. Place the microscopes side by side as shown.



#### Step 2

Remove the "dummy screws" from the head socket of each microscope and back off the set screws two or three turns until flush with the inside of the head socket.

#### Step 3

Place the bridge onto the two microscopes as shown, with the logo and X-axis control knob facing forward. Tighten the set screws and replace the dummy screws.



## Step 4

Remove the dust cover from the bridge head socket and loosen the set screw located on the right side until flush with the inside of the head socket.

## step 5

Place the binocular head onto the bridge, sliding in from the right as shown. Tighten the set screw.



#### Step 6

Insert eyepieces into the eye tubes.

You are now ready to use the Microscope.



#### **BUILT-IN ILLUMINATOR**

An in-base illuminator is built into the bases of these microscopes. Bulb replacement can be done from the underneath side. See Bulb Replacement instructions. The built-in 20 watt bayonet incandescent bulb or 5 watt fluorescent provides all the light needed for illumination. Do Not Use Any Other Bulb As It May Damage The Unit.

#### **FOCUS**

Be sure x-axis control knob lever is in "unlock" position and while looking through eyepieces make sure x-axis control knob is in middle. Each microscope works independently. For each microscope place a specimen slide in mechanical stage and move into position for viewing. Use the 4x objective first. Raise the stage until it will go no higher. Then lower the stage to bring into focus. Use the fine focus knob to achieve optimum resolution. Once the image is sharp you should be able to simply turn the nosepiece to the next objective lens and do minor adjustments with the fine focus knob.

With Coaxial focusing both the coarse and fine focus knobs are on the same axis. The coarse focus knob is the larger knob located next to the arm of the microscope. The fine focus knob is the smaller knob mounted on the outside of the coarse focus knob. Having both sets of knobs on the same axis makes it easier to switch from one focus knob to the other without removing your attention from your prepared slide.

## ABBE CONDENSER 1.25 N.A.

The purpose of the condenser lens is to focus the light. The N.A. of 1.25 gives it the ability to be used with higher magnification 100x objective lens (optional). Movement of the condenser is controlled by a knob. Iris diaphragm level is located on the bottom of the Abbe Condenser

## MECHANICAL STAGE

The mechanical stage moves the slide on an x - y axis. It consists of a slide holder and two knobs. The knobs are located on side below the stage. One knob moves the slide forward and backward. The other knob moves the slide from left to right.

## **BULB REPLACEMENT**

- a. Before changing the bulbs, make sure that the power switches are off and the power cords have been disconnected from the main supply.
- b. On the bottom of your microscope use a slotted screw driver to remove the screw on the lamp door. Pull open the lamp door and carefully remove the old light bulb. For tungsten lamp, remove from the socket by gently pushing in and turning bulb one quarter turn counter clockwise. Put in new bulb and